

Amended CLAIMS for Application Number: 10/828,511

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1. An electrical contact device for each wheel of a scale model electric locomotive having electrically conductive wheels which ride along a pair of electrified spaced apart metal rails of a scale model railroad track and an electric motor which draws electric current from the rails of said track to mechanically drive the wheels of said locomotive along said rails, each of said wheels fixed in a mounting journal which allows for slight vertical movement of said wheel to follow imperfections in height and levelness of said rail, and having a flange for guidance along said rail, and a rolling face or tread that rides along the top surface of said rail and provides physical frictional and electrical contact to said rail.
2. An electrical contact device according to claim 1 that bears on said wheel tread under resilient spring tension afforded by said electrical contact device itself at a position on the wheel tread diametrically opposite to the position of the wheel tread that makes physical contact with said rail.
3. An electrical contact device according to claim 2 that biases each wheel against said rail to maintain physical contact between wheel and rail to maintain friction and electrical contact between said wheel and said rail in spite of mechanical forces that would tend to lift one or more wheels from said rail.
4. An electrical contact device according to claim 2 wherein the said electrical contact device is incorporated into the electric current path from each wheel to one or more current consumers on the model locomotive.
5. An electrical contact device according to claim 2 wherein the said electrical contact device is maintained in a clean and electrically conductive contact condition to said wheel tread by nature of the normal and usual wheel cleaning maintenance by application of liquid solvent to the spinning wheel performed by the operator of the model locomotive on the easily accessible wheel treads.
6. An electrical contact device according to claim 5 wherein the said electrical contact device is maintained in a clean and electrically conductive contact condition to said wheel tread without need for mechanical disassembly of the model locomotive by the operator to remove entrapped dirt that would otherwise cause failure of the electrical contact function.
7. The electrical contact device according to claim 1 in an embodiment wherein after market installation into an existing scale model locomotive can be effected by mechanical captivation of said electrical contact device between existing mechanical components of said existing scale model locomotive.
8. The electrical contact device of Claim 1 in any embodiment for use in any model railroad locomotive for combined purposes of electrical current conduction, resilient bias to maintain wheel to rail contact, and ease of maintaining cleanliness at the interface of said electrical contact device and said wheel.